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Environmental  
Cleanup Office



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue  
Seattle, WA 98101

July 15, 2008

**MEMORANDUM**

**SUBJECT:** Data validation report for the Volatile Organics (VOCs), Semi-Volatile Organics (SVOCs), Organochlorine Pesticides (Pests) and Polychlorinated Biphenyls (PCBs) analyses of samples from the Harbor Oil Superfund Site Case: 37399 SDG: J8K06

**FROM:** Raymond Wu, QA Chemist  
Office of Environmental Assessment *7/15/08*

**TO:** Christopher Cora, Site Assessment Manager  
Office of Environmental Cleanup

**CC:** Lisa Gilbert, Task Order Manager  
Parametrix

The quality assurance (QA) review of 1 water sample and 2 soil samples collected from the above referenced site has been completed. The samples were analyzed for VOCs, SVOCs, Pesticides, and PCBs in accordance with the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Concentration Organic Analysis (SOM01.2) by KAP Technologies, Inc. in The Woodlands, Texas. The following samples were evaluated in this validation report:

**SDG: J8K06**

J8K06            J8K07            J8K14

**DATA QUALIFICATIONS**

The following comments refer to the laboratory performance specification outlined in the Quality Assurance Project Plan (for Harbor Oil Superfund Site in Portland, OR) dated March, 2008, USEPA CLP SOW for Organic Analysis (SOM01.2, 05/2008), and applicable criteria set forth in the USEPA CLP National Functional Guidelines for Organic Data Review (07/2007). Note that some of the analytical data reported may be qualified based on the professional judgment of the data reviewer.

The conclusions presented herein are based on the information provided for the review. Please note some of the VOC, SVOC, and pesticide reporting limits were reported by the contract lab at higher concentration levels than those listed in the QAPP (MA 1562.0).

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### Holding Time - Acceptable

All of the samples met the extraction, Validated Time of Sample Receipt (VTSR) and analytical holding time criteria for VOC, SVOC, Pesticides and PCB analyses. The samples were collected on 4/22/08; received by Manchester laboratory on 4/23/08; Stored in freezer before shipping them to KAP Technologies on 5/06/08; and were extracted for SVOCs, Pesticides and PCBs within five days of Validated Time of Sample Receipt (VTSR) for soil. The water sample was analyzed for VOCs within 14 days of VTSR and the soil samples were analyzed for SVOCs, Pesticides and PCBs within 40 days of sample extraction. The cooler temperatures, upon the verified time of sample receipt (VTSR), were at 3 °C. That was within the acceptable limits of 2-10 °C. None of the data was qualified on this basis.

### Instrument Performance Checks - Acceptable

Three GC/MS and one GC systems were used for the sample analyses. The instruments used met the performance checks, ion abundance criteria and retention time stability checks and all of the samples were analyzed within acceptable 12-hour QC periods. None of the data were qualified on this basis.

### Initial Calibrations (ICAL)

- The frequency of analysis of ICALs for each analytical fraction (VOCs, SVOCs, Pesticides & PCBs) was met. All of the ICALs met the technical acceptance criteria, i.e., the percent relative standard deviation (%RSDs), minimum relative response factors (RRFs), retention time windows, chromatographic resolutions, percent endrin and 4,4'-DDT breakdown (Pesticides only) for all target compounds and surrogates with the following exceptions:

#### VOCs (5/14/08 for water, instrument B-5973 GC/MS)

- The %RSD of 1,2,4-Trichlorobenzene exceeded the 30% QC limit (@ 39.5%). The recalculation of %RSD indicated that the instrument was not linear at the lowest standard concentration analyzed during the initial calibration. This compound was not detected in any of the associated samples at or above the CRQL and would be qualified as estimated, "UJ".

#### VOCs (5/16/08 for soil, instrument B-5973 GC/MS)

- The % RSD of 1,2,3-Trichlorobenzene exceeded the 30% QC Limit (@31.9%). The recalculation of % RSD Indicated that the instrument was not linear at the lowest standard concentration analyzed during the initial Calibration. This compound was not detected in any of the associated samples at or above the CRQL and Would be qualified as estimated, "UJ".

#### SVOCs (5/22/08 for soil, instrument G-5973 GC/MS)

- The %RSD of Di-n-octylphthalate and Benzyl Alcohol exceeded the 30% QC limit at 33.0% and 34.4% respectively. The %RSD indicated that the instrument was not linear at the lowest standard concentration analyzed during the initial calibration for both analytes. These compounds were not detected in any of the associated samples and would be qualified as estimated, "UJ".

None of the pesticide or PCB results was qualified on the basis of ICAL analyses.

### Continuing Calibration Verification (CCV)

The frequency of analysis of CCV checks, chromatographic resolution, percent differences (%Ds) between the mean and daily response (calibration) factors, minimum response factors, retention time shifts and percent DDT and endrin breakdowns (Pesticide & PCB analyses) were met by all target compounds and surrogates.

All of the volatile CCV checks met the criteria for frequency of analysis, the SOW specified, minimum RRFs and %D as compared to the initial calibration with the exception of the following:

Date/Time of Analysis/ Inst.	Compound	%D	Qualifier Detect/Non-detect	Associated Samples
5/16/08 02:57 (opening for soil)	Chloroethane	27.5	J/None	J8K06, J8K07
	Methyl Acetate	32.6	J/None	"

The %Ds of the SVOC target compounds bracketing the sample and QC sample runs were all acceptable with the exception of the following:

Date/Time of Analysis/ Inst.	Compound	%D	Qualifier Detect/Non-detect	Associated Samples
5/24/08 10:52 (opening)	Caprolactam	28.8	J/None	J8K07
	2,4-Dinitrophenol	32.9	J/None	
	3,3'-Dichlorobenzidine	28.5	J/None	
	Di-n-octylphthalate	29.1	J/None	
5/25/08 09:42 (opening)	Caprolactam	29.8	J/None	J8K07DL
	Butylbenzylphthalate	32.2	J/None	
	3,3'-Dichlorobenzidine	37.3	J/None	
	Bis(2-Ethylhexyl)phthalate	36.9	J/None	

The %D of the pesticide & PCB standard mixtures were within the control limits with exception of the following:

Date/Time of Analysis/ Inst.	Compound	%D	Qualifier Detect/Non-detect	Associated Samples
5/29/08 07:44 (closing)	Endosulfan II	-24.6	J/UJ	J8K06, J8K07
	Endosulfan Sulfate	-24.7	J/UJ	
	Endrin Ketone	-23.4	J/UJ	
	Endrin Aldehyde	-30.3	J/UJ	

None of the PCB results were qualified on the basis of CCV.

## Quantitation Limits

The VOC samples were analyzed at the contract required quantitation limits (CRQL). The CRQLs were based on the lowest standard concentration analyzed in the initial calibrations. Target compounds that were detected at concentrations less than the QLs were qualified as estimated, "J". Trace level of common contaminants detected in the samples at concentration < CRQL were qualified by the reviewer as non-detects, "U", and reported at the CRQL. All of the reported results were adjusted for sample amount analyzed. When applicable, all of the "B", "J", "D", "P" and "E" qualifiers applied by the laboratory were crossed out by the reviewer.

All of the sample runs met the Contract-Required Quantitation Limits (CRQLs). There were no significant concentrations of SVOCs detected in all of the samples with exception of 4-Methylphenol (in sample J8K06) and Bis (2-ethylhexyl)phthalate (in sample J8K07). Detected Target compounds in the samples at concentrations less than the CRQLs were qualified as estimated, "J". Trace level of common contaminants detected in the samples at concentration < CRQL were qualified by the reviewer as non-detects, "U", and reported at the CRQL.

Single-component pesticides and PCBs detected at concentrations with variability of >30% but were <60% between the primary and confirmatory columns, RTXCLP and RTXCLP2, were reported and qualified estimated, "J". Variability >60% were reported as non-detected, "U", at an elevated reporting limits (CRQL) due to chromatographic interferences. When applicable, all of the "J" and "P" qualifiers applied by the laboratory were crossed-out by the reviewer.

All were adjusted for the amounts extracted and percent moisture (soil). It is recommended that data users should utilize the results/analytical run selected by the reviewer where more than one analysis was performed on a single extract (ie. Dilution or re-analysis).

## Blanks

The frequency of analysis of blanks and surrogate recovery criteria were met by all of the blanks analyzed. Trace levels of Methylene Chloride were detected in the method and trip blanks. Methylene Chloride is a common laboratory contaminant. Therefore, detected Methylene Chloride at concentrations less than 10x the blank values, within samples associated with these blanks were qualified as non-detects, "U". (Note: there were none detected in any of the samples in this project).

## Analytical Sequence - Acceptable

All of the standards, blanks, samples, and QC samples were analyzed in accordance with the SOW specified analytical sequence. The retention times as monitored by the internal standards (VOCs, SVOCs) and surrogates (Pesticides, PCBs) were within the specified RT windows. All of the sample analyses were within an acceptable 12 hour QC period and were bracketed by a technically acceptable CCV check standards. None of the data was qualified on this basis.

## Surrogates/Deuterated Monitoring Compound Recoveries

Fourteen deuterated VOCS were spiked in all the samples and QC samples to evaluate laboratory performance. The 14 DMCs and their corresponding recovery acceptance limits are:

**"Water"**

DMCs	Recovery Limits (%)	DMCs	Recovery Limits (%)
Vinyl chloride -d3 (VCL)	65-131	1,2- Dichloropropane-d6 (DPA)	79-124
Chloroethane-d5 (CLA)	71-131	Toluene-d8 (TOL)	77-121
1,1- Dichloroethene-d2 (DCE)	55-104	trans-1,3-dichloropropene-d4 (TDP)	73-121
2-Butanone-d5 (BUT)	49-155	2-Hexanone-d5 (HEX)	28-135
Chloroform-d (CLF)	78-121	1,4-Dioxane (DXE)	50-150
1,2-Dichloroethane-d4 (DCA)	78-129	1,1,2,2-Tetrachloroethane-d2 (TCA)	73 –125
Benzene-d6 (BEN)	77-124	1,2-dichlorobenzene-d4 (DCZ)	80 –131

All of the water volatile surrogate recoveries met the applicable recovery criteria.

**"Soil"**

DMCs	Recovery Limits (%)	DMCs	Recovery Limits (%)
Vinyl chloride -d3 (VCL)	68-122	1,2- Dichloropropane-d6 (DPA)	74-124
Chloroethane-d5 (CLA)	61-130	Toluene-d8 (TOL)	78-121
1,1- Dichloroethene-d2 (DCE)	45-132	trans-1,3-dichloropropene-d4 (TDP)	72-130
2-Butanone-d5 (BUT)	20-182	2-Hexanone-d5 (HEX)	17-184
Chloroform-d (CLF)	72-123	1,4-Dioxane (DXE)	50-150
1,2-Dichloroethane-d4 (DCA)	79-122	1,1,2,2-Tetrachloroethane-d2 (TCA)	56 –161
Benzene-d6 (BEN)	80-121	1,2-dichlorobenzene-d4 (DCZ)	70 –131

All of the soil volatile surrogate recoveries met the applicable recovery criteria with exceptions of the following:

Soil Sample	DMC	% Recovery	Qualification Detects/Non-detects	Associated VOCs
J8K06	CLA	139	J/None	Dichlorodifluoromethane, Chloromethane, Bromomethane, Chloroethane, Carbon Disulfide
J8K07	CLA	157	J/None	Dichlorodifluoromethane, Chloromethane, Bromomethane, Chloroethane, Carbon Disulfide

Surrogates or deuterated monitoring compounds (DMCs) are known concentrations of isotope-labeled acid and base/neutral or polynuclear hydrocarbon compounds added to the field and QC samples prior to extraction for SVOC analyses to monitor the laboratory's performance and efficiency during sample processing, extraction and analysis. The following is the list of DMCs/surrogates added to all field and QC samples prior to sample extraction:

DMCs (Soil SVOCs)	Recovery Limits (%)	DMCs (Soil SVOCs)	Recovery Limits (%)
Phenol-d5 (PHL)	17-103	Dimethylphthalate-d6 (DMP)	43-111
Bis(2-chloroethyl)ether-d8 (BCE)	12-98	Acenaphthylene-d8 (ACY)	20-97
2-chlorophenol-d4 (2CP)	13-101	4-Nitrophenol-d4 (4NP)	16-166
4-Methylphenol-d8 (4MP)	8-100	Fluorene-d10 (FLR)	40-108
Nitrobenzene-d4 (NBZ)	16-103	4,6-Dinitro-2-methylphenol-d2 (NMP)	1-121
2-Nitrophenol-d4 (2NP)	16-104	Anthracene-d10 (ANC)	22-98
2,4-Dichlorophenol-d3 (DCP)	23-104	Pyrene-d10 (PYR)	51-120
4-Chloroaniline-d4 (4CA)	1-145	Benzo(a)pyrene-d12 (BAP)	43-111
Fluoranthene-d10 (FLN)*	50-150	2-Methylnaphthalene-d10 (2MN)*	50-150

- Denote SIM Deuterated Monitoring Compound

All of the SVOC surrogate recoveries met the applicable recovery criteria with the following exceptions:

Water Sample	DMC	%Recovery	Qualification Detects/Non-detects	Associated VOCs
J8K06	2NP	110	J/None	Isophorone, 2-Nitrophenol
	ACY	102	J/None	Naphthalene, Fluorene, 4-Chlorophenyl-phenyl ether, Carbazole
	ANC	100	J/None	Hexachlorobenzene, Atrazine, Phenanthrene, Anthracene

Pesticide/PCB DMCs (both water and soil)	Recovery Limits (%)
Tetrachloro-m-xylene (TCX)	30-150
Decachlorobiphenyl (DCB)	30-150

The recoveries of TCX and DCB were calculated and reported from the two GC columns used for both pesticides and PCB analyses. For pesticides, the DCB recoveries met acceptable control limits in one whereas TCX

recoveries failed both soil samples. They were all slightly high. The affected target analytes were qualified J/None. For PCBs, neither surrogates exceeded the QC criteria. Therefore, none was qualified.

### **Matrix Spike/Matrix Spike Duplicate (MS/MSD)**

Samples J8K14 (for Water) and J8K06 (for Soil) were designated for MS/MSD analyses for VOCs, SVOCs, Pesticides and PCBs. The percent recovery and percent difference (%RPD) were met for all with the exceptions of the following:

- Volatile Soil: 2/10 spike recovery were outside the limits. Both 1,1-Dichloroethene (MS & MSD) were slightly low.
- SVOC Soil: 6/18 spike recovery were outside the limits. 4-Chloro-3-methylphenol & 2,4-Dinitrotoluene were higher whereas N-Nitroso-di-n-propylamine was lower.

There was evidence of some matrix interferences in the samples. In addition, due to no spiking compounds detected in the samples, none of the data was qualified on this basis with the discretion of the reviewer.

### **Internal Standards - Acceptable**

#### VOCs (water)

- The acceptance criteria for internal standards (IS) was within +/- 20 seconds for retention time (RT) shifts and 60% to 140% of the IS area as compared to the IS RT and area of the daily continuing verification standard. All of the analyses met the IS area & RT criteria and none was qualified on this basis.

#### VOCS (Soil)

- The acceptance criteria for internal standards (IS) was within +/- 30 seconds for retention time (RT) shifts and 50% to 200% of the IS area as compared to the IS RT and area of the daily continuing verification standard. All of the analyses met the IS area & RT criteria and none was qualified on this basis.

#### SVOC (Soil)

- The acceptance criteria for internal standards (IS) are +/-30 seconds for retention time (RT) shifts and 50% to 200% of the IS area as compared to the IS RT and area of the daily continuing calibration standard. All of the results met the IS area and RT shift criteria and none was qualified on this basis.

### **Compound Identification - Acceptable**

All of the detected target compounds were within the retention time windows. The VOC & the SVOC detections met the USEPA spectral matching criteria and were judged to be acceptable. Likewise, the pesticide/PCB detections were confirmed on a second dissimilar column and were acceptable.

### **Florisil Cartridge Check - Acceptable**

The frequency of analysis and the recovery criteria for florisil used during Pesticides/PCB clean-up were met. None of the data was qualified on this basis.

### Gel Permeation Chromatography (GPC) Check – Acceptable

GPC is an optional cleanup method for both aqueous and non-aqueous samples. It was employed by the contract laboratory. A GPC blank was analyzed and was found to not exceed the contract Required Quantitation Limit (CRQL).

### Tentatively Identified Compounds

Chromatographic peaks in the samples' VOC and SVOC runs that are not target compounds, surrogates or internal standards with areas > 10% of the nearest IS must be tentatively identified by the laboratory using a mass spectral search of the NIST library. The TICs identified by the lab on Form 1s were qualified as tentatively identified at estimated concentrations, "JN", with an unknown bias.

### Laboratory Contact

The laboratory was not contacted during this review.

### Overall Assessment

The total number of data points evaluated was 441. As the result of the data validation, 0.2% of the total data points were attributed to failing surrogates whereas 3.4% of those were qualified due to calibration.

The data, as qualified, are acceptable and can be used for all purposes.

Data Qualifiers		
	U	The analyte was not detected at or above the reported result.
	J	The analyte was positively identified. The associated numerical result is an estimate.
	UJ	The analyte was not detected at or above the reported estimated result. The associated numerical value is an estimate of the quantitation limit of the analyte in this sample.
	R	The data are unusable for all purposes.
	N	There is evidence the analyte is present in this sample.
	JN	There is evidence that the analyte is present. The associated numerical result is an estimate.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K14

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032  
 Lab Code: KAP Case No.: 37399 Mod. Ref No.: \_\_\_\_\_ SDG No.: J8K06  
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-0893.03  
 Sample wt/vol: 25.00 (g/mL) ML Lab File ID: A13960  
 Level: (TRACE/LOW/MED) TRACE Date Received: 05/07/2008  
 % Moisture: not dec. Date Analyzed: 05/15/2008  
 GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)  
 Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

SOM01.2 (6/2007)

7/11/08

00024

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
J8K14

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: SDG No.: J8K06

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: S-0893.03

Sample wt/vol: 25.00 (g/mL) ML

Lab File ID: A13960

Level: (TRACE/LOW/MED) TRACE

Date Received: 05/07/2008

% Moisture: not dec.

Date Analyzed: 05/15/2008

GC Column: RTX-VMS

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-32-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

SOM01.2 (6/2007)



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00025

1J - FORM I VOA-TIC  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J8K14

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399 Mod. Ref No.: \_\_\_\_\_ SDG No.: J8K06

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: S-0893:03

Sample wt/vol: 25.00 (g/mL) ML

Lab File ID: A13960

Level: (TRACE or LOW/MED) TRACE

Date Received: 05/07/2008

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 05/15/2008

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	Unknown-01	2.13	4.9	JN
02	Unknown-02	11.05	10	JN
03				
04				
05				
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24				
25				
26				
27				
28				
29				
30				
E966796 <sup>1</sup>	Total Alkanes	N/A		

<sup>1</sup> EPA-designated Registry Number.

SOM01.2 (6/2007)

*RJ*  
 7/11/08  
 00026

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K06

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032  
 Lab Code: KAP Case No.: 37399 Mod. Ref No.: 1562.0 SDG No.: J8K06  
 Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-0893.01  
 Sample wt/vol: 6.100 (g/mL) G Lab File ID: B16122  
 Level: (TRACE/LOW/MED) LOW Date Received: 05/07/2008  
 % Moisture: not dec. 69 Date Analyzed: 05/16/2008  
 GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)  
 Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	Q
75-71-8	Dichlorodifluoromethane	2.6	U
74-87-3	Chloromethane	2.6	U
75-01-4	Vinyl chloride	2.6	U
74-83-9	Bromomethane	2.6	U
75-00-3	Chloroethane	2.6	U
75-69-4	Trichlorofluoromethane	2.6	U
75-35-4	1,1-Dichloroethene	2.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.53	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	2.6	U
79-20-9	Methyl acetate	13	U
75-09-2	Methylene chloride	5.3	U
156-60-5	trans-1,2-Dichloroethene	2.6	U
1634-04-4	Methyl tert-butyl ether	2.6	U
75-34-3	1,1-Dichloroethane	2.6	U
156-59-2	cis-1,2-Dichloroethene	2.6	U
78-93-3	2-Butanone	13	U
74-97-5	Bromochloromethane	2.6	U
67-66-3	Chloroform	2.6	U
71-55-6	1,1,1-Trichloroethane	2.6	U
110-82-7	Cyclohexane	13	U
56-23-5	Carbon tetrachloride	2.6	U
71-43-2	Benzene	2.6	U
107-06-2	1,2-Dichloroethane	2.6	U
123-91-1	1,4-Dioxane	260	U
79-01-6	Trichloroethene	2.6	U
108-87-2	Methylcyclohexane	13	U
78-87-5	1,2-Dichloropropane	2.6	U
75-27-4	Bromodichloromethane	2.6	U
10061-01-5	cis-1,3-Dichloropropene	2.6	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	2.6	U
10061-02-6	trans-1,3-Dichloropropene	2.6	U
79-00-5	1,1,2-Trichloroethane	2.6	U

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SOM01.2 (6/2007)

00196

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K06

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.01

Sample wt/vol: 6.100 (g/mL) G

Lab File ID: B16122

Level: (TRACE/LOW/MED) LOW

Date Received: 05/07/2008

% Moisture: not dec. 69

Date Analyzed: 05/16/2008

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	2.6	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	2.6	U
106-93-4	1,2-Dibromoethane	2.6	U
108-90-7	Chlorobenzene	2.6	U
100-41-4	Ethylbenzene	2.6	U
95-47-6	o-Xylene	2.6	U
179601-23-1	m,p-Xylene	2.6	U
100-42-5	Styrene	2.6	U
75-25-2	Bromoform	2.6	U
98-82-8	Isopropylbenzene	2.6	U
79-34-5	1,1,2,2-Tetrachloroethane	2.6	U
541-73-1	1,3-Dichlorobenzene	2.6	U
106-46-7	1,4-Dichlorobenzene	2.6	U
95-50-1	1,2-Dichlorobenzene	2.6	U
96-12-8	1,2-Dibromo-3-chloropropane	13	U
120-82-1	1,2,4-Trichlorobenzene	13	U
87-61-6	1,2,3-Trichlorobenzene	13	U
630-20-6	1,1,1,2-Tetrachloroethane	2.6	U
108-86-1	Bromobenzene	2.6	U
104-51-8	n-Butylbenzene	2.6	U
135-98-8	sec-Butylbenzene	2.6	U
98-06-6	tert-Butylbenzene	2.6	U
95-49-8	2-Chlorotoluene	2.6	U
106-43-4	4-Chlorotoluene	2.6	U
74-95-3	Dibromomethane	2.6	U
142-28-9	1,3-Dichloropropane	2.6	U
594-20-7	2,2-Dichloropropane	2.6	U
563-58-6	1,1-Dichloropropene	2.6	U
87-68-3	Hexachlorobutadiene	13	U
99-87-6	p-Isopropyltoluene	2.6	U
103-65-1	n-Propylbenzene	2.6	U
96-18-4	1,2,3-Trichloropropane	5.3	U
95-63-6	1,2,4-Trimethylbenzene	2.6	U
108-67-8	1,3,5-Trimethylbenzene	2.6	U
108-05-4	Vinyl Acetate	13	U

SOM01.2 (6/2007)

00197

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7/11/08

1J - FORM I VOA-TIC  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J8K06

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399 Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.01

Sample wt/vol: 6.100 (g/mL) G

Lab File ID: B16122

Level: (TRACE or LOW/MED) LOW

Date Received: 05/07/2008

% Moisture: not dec. 69

Date Analyzed: 05/16/2008

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01 000075-18-3	Dimethyl sulfide	3.70	20	NJ
02	Unknown-01	4.51	6.1	JN
03	Unknown-02	11.14	15	JN
04 000556-67-2	Cyclotetrasiloxane, octamethyl	15.18	15	NJ
05				
06				
07				
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E966796 <sup>1</sup>	Total Alkanes	N/A	16	JN

<sup>1</sup> EPA-designated Registry Number.

SOM01.2 (6/2007)

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 7/11/08 00198

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K07

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02

Sample wt/vol: 5.100 (g/mL) G

Lab File ID: B16123

Level: (TRACE/LOW/MED) LOW

Date Received: 05/07/2008

% Moisture: not dec. 53

Date Analyzed: 05/16/2008

GC Column: RTX-VMS

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
75-71-8	Dichlorodifluoromethane	2.1	U	
74-87-3	Chloromethane	2.1	U	
75-01-4	Vinyl chloride	2.1	U	
74-83-9	Bromomethane	2.1	U	
75-00-3	Chloroethane	2.1	U	
75-69-4	Trichlorofluoromethane	2.1	U	
75-35-4	1,1-Dichloroethene	2.1	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.42	U	
67-64-1	Acetone	11		
75-15-0	Carbon disulfide	2.1	U	
79-20-9	Methyl acetate	10	U	
75-09-2	Methylene chloride	4.2	U	
156-60-5	trans-1,2-Dichloroethene	2.1	U	
1634-04-4	Methyl tert-butyl ether	2.1	U	
75-34-3	1,1-Dichloroethane	2.1	U	
156-59-2	cis-1,2-Dichloroethene	2.1	U	
78-93-3	2-Butanone	10	U	
74-97-5	Bromochloromethane	2.1	U	
67-66-3	Chloroform	2.1	U	
71-55-6	1,1,1-Trichloroethane	2.1	U	
110-82-7	Cyclohexane	10	U	
56-23-5	Carbon tetrachloride	2.1	U	
71-43-2	Benzene	2.1	U	
107-06-2	1,2-Dichloroethane	2.1	U	
123-91-1	1,4-Dioxane	210	U	
79-01-6	Trichloroethene	2.1	U	
108-87-2	Methylcyclohexane	10	U	
78-87-5	1,2-Dichloropropane	2.1	U	
75-27-4	Bromodichloromethane	2.1	U	
10061-01-5	cis-1,3-Dichloropropene	2.1	U	
108-10-1	4-Methyl-2-pentanone	10	U	
108-88-3	Toluene	2.1	U	
10061-02-6	trans-1,3-Dichloropropene	2.1	U	
79-00-5	1,1,2-Trichloroethane	2.1	U	

  
7/11/08

SOM01.2 (6/2007)

00213

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K07

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02

Sample wt/vol: 5.100 (g/mL) G

Lab File ID: B16123

Level: (TRACE/LOW/MED) LOW

Date Received: 05/07/2008

% Moisture: not dec. 53

Date Analyzed: 05/16/2008

GC Column: RTX-VMS ID: 0.25 (mm)

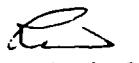
Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	2.1	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	2.1	U
106-93-4	1,2-Dibromoethane	2.1	U
108-90-7	Chlorobenzene	2.1	U
100-41-4	Ethylbenzene	2.1	U
95-47-6	o-Xylene	2.1	U
179601-23-1	m,p-Xylene	2.1	U
100-42-5	Styrene	2.1	U
75-25-2	Bromoform	2.1	U
98-82-8	Isopropylbenzene	2.1	U
79-34-5	1,1,2,2-Tetrachloroethane	2.1	U
541-73-1	1,3-Dichlorobenzene	2.1	U
106-46-7	1,4-Dichlorobenzene	2.1	U
95-50-1	1,2-Dichlorobenzene	2.1	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	2.1	U
108-86-1	Bromobenzene	2.1	U
104-51-8	n-Butylbenzene	2.1	U
135-98-8	sec-Butylbenzene	2.1	U
98-06-6	tert-Butylbenzene	2.1	U
95-49-8	2-Chlorotoluene	2.1	U
106-43-4	4-Chlorotoluene	2.1	U
74-95-3	Dibromomethane	2.1	U
142-28-9	1,3-Dichloropropane	2.1	U
594-20-7	2,2-Dichloropropane	2.1	U
563-58-6	1,1-Dichloropropene	2.1	U
87-68-3	Hexachlorobutadiene	10	U
99-87-6	p-Isopropyltoluene	2.1	U
103-65-1	n-Propylbenzene	2.1	U
96-18-4	1,2,3-Trichloropropane	4.2	U
95-63-6	1,2,4-Trimethylbenzene	2.1	U
108-67-8	1,3,5-Trimethylbenzene	2.1	U
108-05-4	Vinyl Acetate	10	U

  
7/11/08

SOM01.2 (6/2007)

00214

1J - FORM I VOA-TIC  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J8K07

Lab Name: KAP TECHNOLOGIES, INC.	Contract: EPW05032		
Lab Code: KAP	Case No.: 37399	Mod. Ref No.: 1562.0	SDG No.: J8K06
Matrix: (SOIL/SED/WATER)	SOIL	Lab Sample ID: S-0893.02	
Sample wt/vol: 5.100	(g/mL) G	Lab File ID: B16123	
Level: (TRACE or LOW/MED)	LOW	Date Received: 05/07/2008	
% Moisture: not dec.	53	Date Analyzed: 05/16/2008	
GC Column: RTX-VMS	ID: 0.25 (mm)	Dilution Factor: 1.0	
Soil Extract Volume: _____ (uL)	Soil Aliquot Volume: _____ (uL)		
CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Purge Volume: 10.0	(mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	Unknown-01	3.33	6.2	JN
02 000075-18-3	Dimethyl sulfide	3.70	13	NJ
03	Unknown-02	11.14	14	JN
04 000556-67-2	Cyclotetrasiloxane, octamethyl	15.18	14	NJ
05				
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E966796 <sup>1</sup>	Total Alkanes	N/A	14	JN

<sup>1</sup> EPA-designated Registry Number.

SOM01.2 (6/2007)

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7/11/08

00215

2C - FORM II VOA-3  
SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 37399 Mod. Ref No.: 1562.0 SDG No.: J8K06

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (VCL) #	VDMC2 (CLA) #	VDMC3 (DCE) #	VDMC4 (BUT) #	VDMC5 (CLF) #	VDMC6 (DCA) #	VDMC7 (BEN) #
01	VBLK77	106	104	59	109	90	115	94
02	J8K06	110	139 *	61	69	98	111	113
03	J8K07	110	157 *	62	71	94	117	113
04	VBLK79	92	116	52	82	84	99	91
05	J8K06MS	111	195 *	83	77	96	110	120
06	J8K06MSD	110	194 *	84	80	97	115	119
07	VHBLK01	100	145 *	59	104	95	119	103
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QC LIMITS

VDMC1 (VCL) = Vinyl Chloride-d3	(68-122)
VDMC2 (CLA) = Chloroethene-d5	(61-130)
VDMC3 (DCE) = 1,1-Dichloroethene-d2	(45-132)
VDMC4 (BUT) = 2-Butanone-d5	(20-182)
VDMC5 (CLF) = Chloroform-d	(72-123)
VDMC6 (DCA) = 1,2-Dichloroethane-d4	(79-122)
VDMC7 (BEN) = Benzene-d6	(80-121)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

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7/11/08

00186

**REPORT ALL EXCEPT 4-METHYLPHENOL (FROM J8K06DL FULLSCAN)  
& THE PAH'S (FROM J8K06 SV-SIM OR J8K06 SV-SIM Dilution)**

1D - FORM I SV-1  
SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
J8K06

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.01

Sample wt/vol: 100.0 (g/mL). G

Lab File ID: G0329

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 69 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/24/2008

GPC Cleanup: (Y/N) Y pH: 4.9

Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-52-7	Benzaldehyde	65	U
108-95-2	Phenol	290	
111-44-4	Bis(2-chloroethyl)ether	65	U
95-57-8	2-Chlorophenol	65	U
95-48-7	2-Methylphenol	65	U
108-60-1	2,2'-Oxybis(1-chloropropane)	65	U
98-86-2	Acetophenone	65	U
106-44-5	4-Methylphenol	10000	E → Repat from J8K06DL
621-64-7	N-Nitroso-di-n-propylamine	65	U
67-72-1	Hexachloroethane	65	U
98-95-3	Nitrobenzene	65	U
78-59-1	Isophorone	65	U
88-75-5	2-Nitrophenol	65	U
105-67-9	2,4-Dimethylphenol	65	U
111-91-1	Bis(2-chloroethoxy)methane	65	U
120-83-2	2,4-Dichlorophenol	65	U
91-20-3	Naphthalene	65	U
106-47-8	4-Chloroaniline	65	U
87-68-3	Hexachlorobutadiene	65	U
105-60-2	Caprolactam	65	U
59-50-7	4-Chloro-3-methylphenol	65	U
91-57-6	2-Methylnaphthalene	65	U
77-47-4	Hexachlorocyclopentadiene	160	U
88-06-2	2,4,6-Trichlorophenol	65	U
95-95-4	2,4,5-Trichlorophenol	65	U
92-52-4	1,1'-Biphenyl	65	U
91-58-7	2-Chloronaphthalene	65	U
88-74-4	2-Nitroaniline	130	U
131-11-3	Dimethylphthalate	65	U
606-20-2	2,6-Dinitrotoluene	65	U
208-96-8	Acenaphthylene	65	U
99-09-2	3-Nitroaniline	130	U
83-32-9	Acenaphthene	65	U

SOM01.2 (6/2007)

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7/11/08

## SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

J8K06

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.01

Sample wt/vol: 100.0 (g/mL) G

Lab File ID: G0329

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 69 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/24/2008

GPC Cleanup: (Y/N) Y pH: 4.9

Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	320	U
100-02-7	4-Nitrophenol	320	U
132-64-9	Dibenzofuran	65	U
121-14-2	2,4-Dinitrotoluene	65	U
84-66-2	Diethylphthalate	65	U
86-73-7	Fluorene	65	U
7005-72-3	4-Chlorophenyl-phenylether	65	U
100-01-6	4-Nitroaniline	130	U
534-52-1	4,6-Dinitro-2-methylphenol	130	U
86-30-6	N-Nitrosodiphenylamine 1	65	U
95-94-3	1,2,4,5-Tetrachlorobenzene	65	U
101-55-3	4-Bromophenyl-phenylether	65	U
118-74-1	Hexachlorobenzene	65	U
1912-24-9	Atrazine	65	U
87-86-5	Pentachlorophenol	320	U
85-01-8	Phenanthrene	65	U
120-12-7	Anthracene	65	U
86-74-8	9H-Carbazole	65	U
84-74-2	Di-n-butylphthalate	65	U
206-44-0	Fluoranthene	65	U
129-00-0	Pyrene	65	U
85-68-7	Butylbenzylphthalate	65	U
91-94-1	3,3'-Dichlorobenzidine	65	U
56-55-3	Benzo(a)anthracene	65	U
218-01-9	Chrysene	65	U
117-81-7	Bis(2-ethylhexyl)phthalate	550	
117-84-0	Di-n-octylphthalate	65	U
205-99-2	Benzo(b)fluoranthene	65	U
207-08-9	Benzo(k)fluoranthene	65	U
50-32-8	Benzo(a)pyrene	65	U
193-39-5	Indeno(1,2,3-cd)pyrene	65	U
53-70-3	Dibenzo(a,h)anthracene	65	U
191-24-2	Benzo(g,h,i)perylene	65	U
58-90-2	2,3,4,6-Tetrachlorophenol	65	U
65-85-0	Benzoic Acid	80	J
100-51-6	Benzyl Alcohol	65	U
62-53-3	Aniline	160	U
00-00-0	Phthalates	65	U

1. Cannot be separated from Diphenylamine

7/11/08

SOM01.2 (6/2007)

88888

1K - FORM I SV-TIC  
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J8K06

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399 Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.01

Sample wt/vol: 100.0 (g/mL) G

Lab File ID: G0329

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 69 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL)

Date Analyzed: 05/24/2008

GPC Cleanup: (Y/N) Y pH: 4.9

Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	Unknown-01	3.64	6800	JN
02	Unknown-02	3.83	9700	JN
03 000116-53-0	Butanoic acid, 2-methyl-	3.98	6900	NJ
04 000109-52-4	Pentanoic acid	4.53	18000	NJ
05	Unknown-03	4.62	820	JN
06	Unknown-04	4.66	810	J
07	Unknown-05	4.85	790	J
08	Unknown-06	5.16	1300	J
09 000103-82-2	Benzeneacetic acid	9.98	2500	NJ
10 002451-01-6	Terpin Hydrate	10.76	930	NJ
11 000143-07-7	Dodecanoic acid	13.02	1300	NJ
12	Unknown-07	13.27	900	JN
13 035507-09-6	7-Hexadecene, (Z)-	14.99	1300	NJ
14 000057-10-3	n-Hexadecanoic acid	15.36	1600	NJ
15 001599-67-3	1-Docosene	18.63	690	NJ
16 020834-06-4	Dodecanoic acid, hexadecyl es	19.15	1200	NJ
17 002599-01-1	Tetradecanoic acid, hexadecyl	20.45	720	NJ
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29				
30				
E966796 <sup>2</sup>	Total Alkanes	N/A	2800	JN

<sup>2</sup> EPA-designated Registry Number.

SOM01.2 (6/2007)

*L*  
7/11/08

# Report Only 4-Methylphenol

1D - FORM I SV-1  
SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
J8K06DL

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.01DL

Sample wt/vol: 100.0 (g/mL) G

Lab File ID: G0346

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 69 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/24/2008

GPC Cleanup: (Y/N) Y pH: 4.9

Dilution Factor: 20.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-52-7	Benzaldehyde	1300	U
108-95-2	Phenol	1300	U
111-44-4	Bis(2-chloroethyl)ether	1300	U
95-57-8	2-Chlorophenol	1300	U
95-48-7	2-Methylphenol	1300	U
108-60-1	2,2'-Oxybis(1-chloropropane)	1300	U
98-86-2	Acetophenone	1300	U
106-44-5	4-Methylphenol	9800	P
621-64-7	N-Nitroso-di-n-propylamine	1300	U
67-72-1	Hexachloroethane	1300	U
98-95-3	Nitrobenzene	1300	U
78-59-1	Isophorone	1300	U
88-75-5	2-Nitrophenol	1300	U
105-67-9	2,4-Dimethylphenol	1300	U
111-91-1	Bis(2-chloroethoxy)methane	1300	U
120-83-2	2,4-Dichlorophenol	1300	U
91-20-3	Naphthalene	1300	U
106-47-8	4-Chloroaniline	1300	U
87-68-3	Hexachlorobutadiene	1300	U
105-60-2	Caprolactam	1300	U
59-50-7	4-Chloro-3-methylphenol	1300	U
91-57-6	2-Methylnaphthalene	1300	U
77-47-4	Hexachlorocyclopentadiene	3200	U
88-06-2	2,4,6-Trichlorophenol	1300	U
95-95-4	2,4,5-Trichlorophenol	1300	U
92-52-4	1,1'-Biphenyl	1300	U
91-58-7	2-Chloronaphthalene	1300	U
88-74-4	2-Nitroaniline	2600	U
131-11-3	Dimethylphthalate	1300	U
606-20-2	2,6-Dinitrotoluene	1300	U
208-96-8	Acenaphthylene	1300	U
99-09-2	3-Nitroaniline	2600	U
83-32-9	Acenaphthene	1300	U

→Report

SOM01.2 (6/2007)

*[Signature]*  
7/11/08

1E - FORM I SV-2  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K06DL

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.01DL

Sample wt/vol: 100.0 (g/mL) G

Lab File ID: G0346

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 69 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/24/2008

GPC Cleanup: (Y/N) Y pH: 4.9

Dilution Factor: 20.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	6500	U
100-02-7	4-Nitrophenol	6500	U
132-64-9	Dibenzofuran	1300	U
121-14-2	2,4-Dinitrotoluene	1300	U
84-66-2	Diethylphthalate	1300	U
86-73-7	Fluorene	1300	U
7005-72-3	4-Chlorophenyl-phenylether	1300	U
100-01-6	4-Nitroaniline	2600	U
534-52-1	4,6-Dinitro-2-methylphenol	2600	U
86-30-6	N-Nitrosodiphenylamine 1	1300	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1300	U
101-55-3	4-Bromophenyl-phenylether	1300	U
118-74-1	Hexachlorobenzene	1300	U
1912-24-9	Atrazine	1300	U
87-86-5	Pentachlorophenol	6500	U
85-01-8	Phenanthrene	1300	U
120-12-7	Anthracene	1300	U
86-74-8	9H-Carbazole	1300	U
84-74-2	Di-n-butylphthalate	1300	U
206-44-0	Fluoranthene	1300	U
129-00-0	Pyrene	1300	U
85-68-7	Butylbenzylphthalate	1300	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	1300	U
218-01-9	Chrysene	1300	U
117-81-7	Bis(2-ethylhexyl)phthalate	1300	U
117-84-0	Di-n-octylphthalate	1300	U
205-99-2	Benzo(b)fluoranthene	1300	U
207-08-9	Benzo(k)fluoranthene	1300	U
50-32-8	Benzo(a)pyrene	1300	U
193-39-5	Indeno(1,2,3-cd)pyrene	1300	U
53-70-3	Dibenzo(a,h)anthracene	1300	U
191-24-2	Benzo(g,h,i)perylene	1300	U
58-90-2	2,3,4,6-Tetrachlorophenol	1300	U
65-85-0	Benzoic Acid	3200	U
100-51-6	Benzyl Alcohol	1300	U
62-53-3	Aniline	3200	U
00-00-0	Phthalates	1300	U

1 Cannot be separated from Diphenylamine

  
7/11/08

1K - FORM I SV-TIC  
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J8K06DL

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399 Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.01DL

Sample wt/vol: 100.0 (g/mL) G

Lab File ID: G0346

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 69 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL)

Date Analyzed: 05/24/2008

GPC Cleanup: (Y/N) Y pH: 4.9

Dilution Factor: 20.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	Unknown-01	3.43	13000	DJ
02	Unknown-02	3.59	8400	DJ
03	Pentanoic acid	4.08	17000	DNJ
04	Dodecanoic acid	12.95	5100	DNJ
05	Cyclopentadecane	14.99	6700	DNJ
06	Cyclopentadecane	17.81	4600	DNJ
07	Unknown-03	18.05	4800	DJ
08	Unknown-04	18.21	6600	DJ
09	Heptafluorobutanoic acid, hep	18.37	6300	DNJ
10	Dodecanoic acid, hexadecyl es	18.97	4500	DNJ
11	Dodecanoic acid, hexadecyl es	19.18	7700	DNJ
12	Dodecanoic acid, hexadecyl es	19.39	7400	DNJ
13	Unknown-05	20.04	4800	DJ
14	Unknown-06	20.50	6300	DJ
15	Unknown-07	20.80	5400	DJ
16	Unknown-08	21.07	4600	DJ
17	Unknown-09	22.39	5100	DJ
18				
19				
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29				
30				
E966796 <sup>2</sup>	Total Alkanes	N/A	15000	DJ

<sup>2</sup> EPA-designated Registry Number.

SOM01.2 (6/2007)

R  
7/11/08

Report All but bis(2-ethylhexyl)phthalate & The PAH's.  
 (FROM J8K070L FULL SCAN) (FROM J8K07 SV-SIM  
 OR SV-SIM DILUTION)

1D - FORM I SV-1  
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
 J8K07

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02

Sample wt/vol: 100.3 (g/mL) G

Lab File ID: G0347

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 53 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/24/2008

GPC Cleanup: (Y/N) Y pH: 5.2

Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-52-7	Benzaldehyde	42	U
108-95-2	Phenol	42	U
111-44-4	Bis(2-chloroethyl)ether	42	U
95-57-8	2-Chlorophenol	42	U
95-48-7	2-Methylphenol	42	U
108-60-1	2,2'-Oxybis(1-chloropropane)	42	U
98-86-2	Acetophenone	42	U
106-44-5	4-Methylphenol	42	U
621-64-7	N-Nitroso-di-n-propylamine	42	U
67-72-1	Hexachloroethane	42	U
98-95-3	Nitrobenzene	42	U
78-59-1	Isophorone	42	U
88-75-5	2-Nitrophenol	42	U
105-67-9	2,4-Dimethylphenol	42	U
111-91-1	Bis(2-chloroethoxy)methane	42	U
120-83-2	2,4-Dichlorophenol	42	U
91-20-3	Naphthalene	42	U
106-47-8	4-Chloroaniline	42	U
87-68-3	Hexachlorobutadiene	42	U
105-60-2	Caprolactam	42	U
59-50-7	4-Chloro-3-methylphenol	42	U
91-57-6	2-Methylnaphthalene	42	U
77-47-4	Hexachlorocyclopentadiene	110	U
88-06-2	2,4,6-Trichlorophenol	42	U
95-95-4	2,4,5-Trichlorophenol	42	U
92-52-4	1,1'-Biphenyl	42	U
91-58-7	2-Chloronaphthalene	42	U
88-74-4	2-Nitroaniline	85	U
131-11-3	Dimethylphthalate	42	U
606-20-2	2,6-Dinitrotoluene	42	U
208-96-8	Acenaphthylene	42	U
99-09-2	3-Nitroaniline	85	U
83-32-9	Acenaphthene	42	U

SOM01.2 (6/2007)

7/11/08

1E - FORM I SV-2  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K07

R  
Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02

Sample wt/vol: 100.3 (g/mL) G

Lab File ID: G0347

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 53 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/24/2008

GPC Cleanup: (Y/N) Y pH: 5.2

Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	210	U
100-02-7	4-Nitrophenol	210	U
132-64-9	Dibenzofuran	42	U
121-14-2	2,4-Dinitrotoluene	42	U
84-66-2	Diethylphthalate	42	U
86-73-7	Fluorene	42	U
7005-72-3	4-Chlorophenyl-phenylether	42	U
100-01-6	4-Nitroaniline	85	U
534-52-1	4,6-Dinitro-2-methylphenol	85	U
86-30-6	N-Nitrosodiphenylamine 1	42	U
95-94-3	1,2,4,5-Tetrachlorobenzene	42	U
101-55-3	4-Bromophenyl-phenylether	42	U
118-74-1	Hexachlorobenzene	42	U
1912-24-9	Atrazine	42	U
87-86-5	Pentachlorophenol	210	U
85-01-8	Phenanthrene	42	U
120-12-7	Anthracene	42	U
86-74-8	9H-Carbazole	42	U
84-74-2	Di-n-butylphthalate	42	U
206-44-0	Fluoranthene	65	
129-00-0	Pyrene	56	
85-68-7	Butylbenzylphthalate	42	U
91-94-1	3,3'-Dichlorobenzidine	42	U
56-55-3	Benzo(a)anthracene	42	U
218-01-9	Chrysene	42	U
117-81-7	Bis(2-ethylhexyl)phthalate	1100	E → Repat from J8K07DL
117-84-0	Di-n-octylphthalate	42	U
205-99-2	Benzo(b)fluoranthene	42	U
207-08-9	Benzo(k)fluoranthene	42	U
50-32-8	Benzo(a)pyrene	42	U
193-39-5	Indeno(1,2,3-cd)pyrene	42	U
53-70-3	Dibenzo(a,h)anthracene	42	U
191-24-2	Benzo(g,h,i)perylene	42	U
58-90-2	2,3,4,6-Tetrachlorophenol	42	U
65-85-0	Benzoic Acid	110	U
100-51-6	Benzyl Alcohol	42	U
62-53-3	Aniline	110	U
00-00-0	Phthalates	42	U

R  
1 Cannot be separated from Diphenylamine

7/11/08

1K - FORM I SV-TIC  
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J8K07

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032  
 Lab Code: KAP Case No.: 37399 Mod. Ref No.: 1562.0. SDG No.: J8K06  
 Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-0893.02  
 Sample wt/vol: 100.3 (g/mL) G Lab File ID: G0347  
 Level: (LOW/MED) LOW Extraction: (Type) SONC  
 % Moisture: 53 Decanted: (Y/N) N Date Received: 05/07/2008  
 Concentrated Extract Volume: 500 (uL) Date Extracted: 05/10/2008  
 Injection Volume: 1.0 (uL) Date Analyzed: 05/24/2008  
 GPC Cleanup: (Y/N) Y pH: 5.2 Dilution Factor: 1.0  
 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	Unknown-01	3.13	270	JN
02	Unknown-02	3.49	360	J
03	Unknown-03	4.61	360	J
04	Unknown-04	4.65	230	J
05	Unknown-05	4.84	500	J
06	Unknown-06	5.36	300	J
07	001632-73-1 Bicyclo[2.2.1]heptan-2-ol, 1,	7.89	200	NJ
08	002451-01-6 Terpin Hydrate	10.75	440	NJ
09	000150-86-7 Phytol	15.98	210	NJ
10	1000282-97-3 Heptafluorobutanoic acid, hept-	18.85	200	NJ
11	007390-81-0 Oxirane, hexadecyl-	19.89	220	NJ
12	Unknown-07	20.04	210	JN
13	062016-79-9 Heptacosane, 1-chloro-	20.23	300	NJ
14	Unknown-08	20.47	280	JN
15				
16				
17				
18				
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23				
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27				
28				
29				
30				
E966796 <sup>2</sup>	Total Alkanes	N/A	1400	JN

<sup>2</sup> EPA-designated Registry Number.

SOM01.2 (6/2007)

*[Signature]*  
7/11/08

*Repat Only Bis(2-ethylhexyl) phthalate*

1D - FORM I SV-1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K07DL

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02DL

Sample wt/vol: 100.3 (g/mL) G

Lab File ID: G0377

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 53 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/25/2008

GPC Cleanup: (Y/N) Y pH: 5.2

Dilution Factor: 4.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-52-7	Benzaldehyde	170	U
108-95-2	Phenol	170	U
111-44-4	Bis(2-chloroethyl)ether	170	U
95-57-8	2-Chlorophenol	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-Oxybis(1-chloropropane)	170	U
98-86-2	Acetophenone	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-di-n-propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
111-91-1	Bis(2-chloroethoxy)methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
105-60-2	Caprolactam	170	U
59-50-7	4-Chloro-3-methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	170	U
92-52-4	1,1'-Biphenyl	170	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	340	U
131-11-3	Dimethylphthalate	170	U
606-20-2	2,6-Dinitrotoluene	170	U
208-96-8	Acenaphthylene	170	U
99-09-2	3-Nitroaniline	340	U
83-32-9	Acenaphthene	170	U

SOM01.2 (6/2007)

*R*  
*7/11/08*

1E - FORM I SV-2  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K07DL

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02DL

Sample wt/vol: 100.3 (g/mL) G

Lab File ID: G0377

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 53 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/25/2008

GPC Cleanup: (Y/N) Y pH: 5.2

Dilution Factor: 4.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	850	U
100-02-7	4-Nitrophenol	850	U
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	170	U
84-66-2	Diethylphthalate	170	U
86-73-7	Fluorene	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
100-01-6	4-Nitroaniline	340	U
534-52-1	4,6-Dinitro-2-methylphenol	340	U
86-30-6	N-Nitrosodiphenylamine 1	170	U
95-94-3	1,2,4,5-Tetrachlorobenzene	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
1912-24-9	Atrazine	170	U
87-86-5	Pentachlorophenol	850	U
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	9H-Carbazole	170	U
84-74-2	Di-n-butylphthalate	170	U
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	170	U
85-68-7	Butylbenzylphthalate	170	U
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	Bis(2-ethylhexyl)phthalate	1200	✓ → Report
117-84-0	Di-n-octylphthalate	170	U
205-99-2	Benzo(b)fluoranthene	170	U
207-08-9	Benzo(k)fluoranthene	170	U
50-32-8	Benzo(a)pyrene	170	U
193-39-5	Indeno(1,2,3-cd)pyrene	170	U
53-70-3	Dibenzo(a,h)anthracene	170	U
191-24-2	Benzo(g,h,i)perylene	170	U
58-90-2	2,3,4,6-Tetrachlorophenol	170	U
65-85-0	Benzoic Acid	420	U
100-51-6	Benzyl Alcohol	170	U
62-53-3	Aniline	420	U
00-00-0	Phthalates	170	U

1 Cannot be separated from Diphenylamine

*R*  
7/11/08

1K - FORM I SV-TIC  
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J8K07DL

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02DL

Sample wt/vol: 100.3 (g/mL) G

Lab File ID: G0377

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 53 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL)

Date Analyzed: 05/25/2008

GPC Cleanup: (Y/N) Y pH: 5.2

Dilution Factor: 4.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01 000080-53-5	Cyclohexanemethanol, 4-hydrox	10.69	720	DNJ
02 004429-77-0	Cycloheptadecanol	18.64	890	DNJ
03 018835-32-0	1-Tricosene	18.77	750	DNJ
04 1000131-18-9	Z-14-Nonacosane	18.96	780	DNJ
05	Unknown-01	19.69	790	DJ
06 007390-81-0	Oxirane, hexadecyl-	19.78	850	DNJ
07	Unknown-02	19.94	790	DJ
08	Unknown-03	20.35	1100	DJ
09	Unknown-04	20.60	790	DJ
10 007494-34-0	26-Nor-5-cholest-3.beta.-ol	20.96	750	DNJ
11 1000155-82-2	Bicyclo[10.8.0]eicosane, cis-	21.40	710	DNJ
12	Unknown-05	22.36	730	DJ
13	Unknown-06	22.52	850	DJ
14 000083-47-6	.gamma.-Sitosterol	22.95	1100	DNJ
15	Unknown-07	23.60	1000	DJ
16 020475-86-9	Urs-12-en-24-oic acid, 3-oxo-	23.84	940	DNJ
17	Unknown-08	24.19	1100	DJ
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
E966796 <sup>2</sup>	Total Alkanes	N/A	2800	DJ

<sup>2</sup> EPA-designated Registry Number.

SOM01.2 (6/2007)

R  
7/11/08

REPORT ALL PAHs EXCEPT FOR FLUORANTHENE, PYRENE, CHRYSENE, BENZO(b)FLUORANTHENE,  
BENZO(a)PYRENE & BENZO(ghi)perylene. THEY REPORT FROM J8K06 SIM DILUTION.

1F - FORM I SV-SIM  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
J8K06

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399 Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-0893.01

Sample wt/vol: 100.0 (g/mL) G Lab File ID: G0492

Extraction: (Type) SONC

% Moisture: 69 Decanted: (Y/N) N Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL) Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/30/2008

GPC Cleanup: (Y/N) Y pH: 4.9 Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	11	
91-57-6	2-Methylnaphthalene	5.7	
208-96-8	Acenaphthylene	5.5	
83-32-9	Acenaphthene	5.0	
86-73-7	Fluorene	6.0	
132-64-9	Dibenzofuran	3.2	U
85-01-8	Phenanthrene	21	
120-12-7	Anthracene	7.8	
206-44-0	Fluoranthene	40	E → Report from J8K06 DL " (SIM DIL)
129-00-0	Pyrene	44	E →
56-55-3	Benzo(a)anthracene	24	"
218-01-9	Chrysene	40	E →
205-99-2	Benzo(b)fluoranthene	36	E →
207-08-9	Benzo(k)fluoranthene	31	"
50-32-8	Benzo(a)pyrene	49	E →
193-39-5	Indeno(1,2,3-cd)pyrene	32	"
53-70-3	Dibenzo(a,h)anthracene	3.2	U
191-24-2	Benzo(g,h,i)perylene	41	E →

1 Cannot be separated from Diphenylamine

RJ  
7/14/08

SOM01.2 (6/2007)

00758

ONLY  
Report, FLUORANTHENE, PYRENE, CHRYSENE, BENZO(b)FLUORANTHENE, BENZO(a)PYRENE  
& BENZO(g,h,i)PERYLENE. *DP*, *R*  
7/14/08

1F - FORM I SV-SIM EPA SAMPLE NO.  
SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET J8K06DL

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.01DL

Sample wt/vol: 100.0 (g/mL) G

Lab File ID: G0539

Extraction: (Type) SONC

% Moisture: 69 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/31/2008

GPC Cleanup: (Y/N) Y pH: 4.9

Dilution Factor: 5.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	11	DJ
91-57-6	2-Methylnaphthalene	16	U
208-96-8	Acenaphthylene	16	U
83-32-9	Acenaphthene	16	U
86-73-7	Fluorene	16	U
132-64-9	Dibenzofuran	16	U
85-01-8	Phenanthrene	26	D
120-12-7	Anthracene	13	DJ
206-44-0	Fluoranthene	38	D → Report
129-00-0	Pyrene	56	D → "
56-55-3	Benzo(a)anthracene	31	D
218-01-9	Chrysene	70	D → "
205-99-2	Benzo(b)fluoranthene	37	D → "
207-08-9	Benzo(k)fluoranthene	54	D
50-32-8	Benzo(a)pyrene	57	D → "
193-39-5	Indeno(1,2,3-cd)pyrene	37	D
53-70-3	Dibenzo(a,h)anthracene	16	U
191-24-2	Benzo(g,h,i)perylene	56	D → "

1 Cannot be separated from Diphenylamine

*[Signature]*  
7/14/08

SOM01.2 (6/2007)

00778

REPORT ALL PAHS EXCEPT FOR PHENANTHREN<sub>E</sub>, FLUORANTHREN<sub>E</sub>, PYKENE, BENZO(a)ANTHRAACENE,  
CHRYSENE, BENZO(b)FLUORANTHREN<sub>E</sub>, BENZO(K)FLUORANTHREN<sub>E</sub>, BENZO(a)PYRENE, BENZO(gh)PERYLENE,  
THEY REPORT FROM J8K07 DL

1F - FORM I SV-SIM  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
J8K07

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02

Sample wt/vol: 100.3 (g/mL) G

Lab File ID: G0493

Extraction: (Type) SONC

% Moisture: 53 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/30/2008

GPC Cleanup: (Y/N) Y pH: 5.2

Dilution Factor: 1.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	3.5	
91-57-6	2-Methylnaphthalene	1.8	J
208-96-8	Acenaphthylene	9.2	
83-32-9	Acenaphthene	1.7	J
86-73-7	Fluorene	2.1	U
132-64-9	Dibenzofuran	2.1	U
85-01-8	Phenanthrene	22	E → Report from J8K07 (SIMPL)
120-12-7	Anthracene	9.6	"
206-44-0	Fluoranthene	55	E → "
129-00-0	Pyrene	54	E → "
56-55-3	Benzo(a)anthracene	31	E → "
218-01-9	Chrysene	49	E → "
205-99-2	Benzo(b)fluoranthene	24	E → "
207-08-9	Benzo(k)fluoranthene	32	E → "
50-32-8	Benzo(a)pyrene	45	E → "
193-39-5	Indeno(1,2,3-cd)pyrene	19	"
53-70-3	Dibenzo(a,h)anthracene	2.1	U
191-24-2	Benzo(g,h,i)perylene	28	E → "

Cannot be separated from Diphenylamine

R  
7/14/08

SOM01.2 (6/2007)

00790

REPORT ONLY PHENANTHRENE, FLUORANTHENE, PYRENE, BENZO(a)ANTHRACENE, CHRYSENE,  
BENZO(b)FLUORANTHENE, BENZOC(k)FLUORANTHENE, BENZO(a)PYRENE & BENZO(g,h,i)PERYLENE.

1F - FORM I SV-SIM  
SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
J8K07DL

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod. Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02DL

Sample wt/vol: 100.0 (g/mL) G

Lab File ID: G0540

Extraction: (Type) SONC

% Moisture: 53 Decanted: (Y/N) N

Date Received: 05/07/2008

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/10/2008

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/31/2008

GPC Cleanup: (Y/N) Y pH: 5.2

Dilution Factor: 5.0

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	11	U
91-57-6	2-Methylnaphthalene	11	U
208-96-8	Acenaphthylene	6.9	DJ
83-32-9	Acenaphthene	11	U
86-73-7	Fluorene	11	U
132-64-9	Dibenzofuran	11	U
85-01-8	Phenanthrene	25	D
120-12-7	Anthracene	10	DJ
206-44-0	Fluoranthene	56	D
129-00-0	Pyrene	69	D
56-55-3	Benzo(a)anthracene	31	D
218-01-9	Chrysene	58	D
205-99-2	Benzo(b)fluoranthene	24	D
207-08-9	Benzo(k)fluoranthene	41	D
50-32-8	Benzo(a)pyrene	43	DD
193-39-5	Indeno(1,2,3-cd)pyrene	21	D
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	32	D

<sup>1</sup> Cannot be separated from Diphenylamine

→ Report

SOM01.2 (6/2007)

00810

1G - FORM I PEST  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
J8K06

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032  
 Lab Code: KAP Case No.: 37399 Mod. Ref No.: 1562.0 SDG No.: J8K06  
 Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-0893.01  
 Sample wt/vol: 30.10 (g/mL) G Lab File ID: A10758  
 \* Moisture: 69 Decanted: (Y/N) N Date Received: 05/07/2008  
 Extraction: (Type) SONC Date Extracted: 05/08/2008  
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/30/2008  
 Injection Volume: 1.0 (uL) GPC Factor: 2.0 Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) Y pH: 4.9 Sulfur Cleanup: (Y/N) N

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	5.5	U
319-85-7	beta-BHC	5.5	U
319-86-8	delta-BHC	5.5	U
58-89-9	gamma-BHC (Lindane)	5.5	U
76-44-8	Heptachlor	5.5	U
309-00-2	Aldrin	5.5	U
1024-57-3	Heptachlor epoxide	5.5	U
959-98-8	Endosulfan I	5.5	U
60-57-1	Dieldrin	11	U
72-55-9	4, 4'-DDE	12	
72-20-8	Endrin	11	U
33213-65-9	Endosulfan II	11	UJ
72-54-8	4, 4'-DDD	6.3	J
1031-07-8	Endosulfan sulfate	11	UJ
50-29-3	4, 4'-DDT	2.2	J
72-43-5	Methoxychlor	55	U
53494-70-5	Endrin ketone	11	UJ
7421-93-4	Endrin aldehyde	11	UJ
5103-71-9	alpha-Chlordane	5.5	U
5103-74-2	gamma-Chlordane	5.5	U
8001-35-2	Toxaphene	550	U
53-19-0	2, 4'-DDD	5.5	U
3424-82-6	2, 4'-DDE	5.5	U
789-02-6	2, 4'-DDT	5.5	U
000-00-0	Total DDTs	11	U
87-68-3	Hexachlorobutadiene	5.5	U
118-74-1	Hexachlorobenzene	5.5	U

SOM01.2 (6/2007)

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7/14/08

00952

1G - FORM I PEST  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
J8K07

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032  
 Lab Code: KAP Case No.: 37399 Mod. Ref No.: 1562.0 SDG No.: J8K06  
 Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-0893.02  
 Sample wt/vol: 30.10 (g/mL) G Lab File ID: A10764  
 % Moisture: 53 Decanted: (Y/N) N Date Received: 05/07/2008  
 Extraction: (Type) SONC Date Extracted: 05/08/2008  
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/30/2008  
 Injection Volume: 1.0 (uL) GPC Factor: 2.0 Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) Y pH: 5.2 Sulfur Cleanup: (Y/N) N

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	3.6	U
319-85-7	beta-BHC	3.6	U
319-86-8	delta-BHC	3.6	U
58-89-9	gamma-BHC (Lindane)	3.6	U
76-44-8	Heptachlor	3.6	U
309-00-2	Aldrin	3.6	U
1024-57-3	Heptachlor epoxide	3.6	U
959-98-8	Endosulfan I	3.6	U
60-57-1	Dieldrin	7.0	U
72-55-9	4, 4'-DDE	8.0	J
72-20-8	Endrin	7.0	U
33213-65-9	Endosulfan II	7.0	UJ
72-54-8	4, 4'-DDD	2.5	JF
1031-07-8	Endosulfan sulfate	7.0	UJ
50-29-3	4, 4'-DDT	7.0	U
72-43-5	Methoxychlor	36	U
53494-70-5	Endrin ketone	7.0	UJ
7421-93-4	Endrin aldehyde	7.0	UJ
5103-71-9	alpha-Chlordane	3.6	U
5103-74-2	gamma-Chlordane	3.6	U
8001-35-2	Toxaphene	360	U
53-19-0	2, 4'-DDD	3.6	U
3424-82-6	2, 4'-DDE	3.6	U
789-02-6	2, 4'-DDT	3.6	U
000-00-0	Total DDTs	7.0	U
87-68-3	Hexachlorobutadiene	3.6	U
118-74-1	Hexachlorobenzene	3.6	U

SOM01.2 (6/2007)

R  
7/14/08 00955

1H - FORM I ARO  
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J8K06

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032  
 Lab Code: KAP Case No.: 37399 Mod Ref No.: 1562.0 SDG No.: J8K06  
 Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-0893.01  
 Sample wt/vol: 60.30 (g/mL) G Lab File ID: P18024  
 % Moisture: 69 Decanted: (Y/N) N Date Received: 05/07/2008  
 Extraction: (Type) SONC Date Extracted: 05/09/2008  
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/28/2008  
 Injection Volume: 1.0 (uL) GPC Factor: \_\_\_\_\_ Dilution Fact 1.0  
 GPC Cleanup: (Y/N) N Sulfur Cleanup: (Y/N) N  
 Acid Cleanup: (Y/N) Y

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	27	U
11104-28-2	Aroclor-1221	27	U
11141-16-5	Aroclor-1232	27	U
53469-21-9	Aroclor-1242	27	U
12672-29-6	Aroclor-1248	27	U
11097-69-1	Aroclor-1254	27	U
11096-82-5	Aroclor-1260	27	U
37324-23-5	Aroclor-1262	27	U
11100-14-4	Aroclor-1268	27	U
111-11-1	Total PCBs	27	U

SOM01.2 (6/2007)

*R*  
7/14/08  
©1118

1H - FORM I ARO  
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
J8K07

Lab Name: KAP TECHNOLOGIES, INC.

Contract: EPW05032

Lab Code: KAP Case No.: 37399

Mod Ref No.: 1562.0 SDG No.: J8K06

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: S-0893.02

Sample wt/vol: 60.10 (g/mL) G

Lab File ID: P18027

% Moisture: 53 Decanted: (Y/N) N

Date Received: 05/07/2008

Extraction: (Type) SONC

Date Extracted: 05/09/2008

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 05/28/2008

Injection Volume: 1.0 (uL) GPC Factor: \_\_\_\_\_

Dilution Fact 1.0

GPC Cleanup: (Y/N) N pH: 5.2

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	18	U
11104-28-2	Aroclor-1221	18	U
11141-16-5	Aroclor-1232	18	U
53469-21-9	Aroclor-1242	18	U
12672-29-6	Aroclor-1248	18	U
11097-69-1	Aroclor-1254	18	U
11096-82-5	Aroclor-1260	18	U
37324-23-5	Aroclor-1262	18	U
11100-14-4	Aroclor-1268	18	U
111-11-1	Total PCBs	18	U

SOM01.2 (6/2007)

*[Signature]*

7/14/08

01121